

BRUNICK, G.

Soviet Aeroflot Airlines. p. 10.

(SAMOZYBIATA WISSEL. Vol. 13, No. 27, July 1957. Warszawa, Poland)

SO: Monthly List of East European Accessions (BRAL) 10. Vol. 6, No. 10, October 1957. Uncl.

SOLNICKI, Henryk, ~~ins.~~

Influence of applying divided brushes upon the degree of sparking
in the LKa-450 t/pe motor. Przegl elektrotechn 38 no.7:312
Jl '62.

1. Instytut Elektrotechniki, Warszawa.

SOLNICKOVA, Z.

SOLNICKOVA, Z. New forms of planning, supply, and consumption as a means of improving consumers' goods supply of the population. p. 482

Vol. 7, no. 11, 1956
PRUMYSL POTRAVIN
TECHNOLOGY
Praha, Czechoslovakia

So: East European Accession, Vol. 6, No. 2, 1957

SOLNIK, J.

3184. EVALUATION OF QUALITY OF LUBRICATING OILS IN USE. Solnik, J.
(*Nafta (Petroleum, Krakow)*, 1955, vol. 11, 235, 236). It has been the
general practice to determine the age and suitability of oils by their
saponification and acid values, the limits being set at various figures in
different countries. There are, however, other considerations, in
particular, formation of gum and asphaltene due to polymerization. $F =$
(saponification and acid value) - (gum content) - (content of hard
asphaltenes). F values 0-35 indicate good oils, 36-55 oils which are
satisfactory, 56-70 oils to be used in emergency only, and above 70 useless
as lubricant and injurious to the engine. Estimation of F is made
according to modified Suld-Pollé method, which is described.

JMB
mt

SOLNIMSKY, G.L., professor; BERESTNEV, V.A.

Regarding the concepts of the strength of polymer materials. Khim.
nauka i prom. 4 no.4:543-544 '59. (MIRA 13:8)
(Polymers) (Strength of materials)

L 29613-66 EEC(k)-2/EWT(d)/FSS-2 BC
ACC NR: AP6010779

SOURCE CODE: UR/0146/66/009/001/0119/0124

AUTHOR: Vorob'yev, V. G.; Sol'nitsev, R. I.

ORG: Leningrad Electrotechnical Institute im. V. I. Ul'yanov (Leningradskiy elektrotekhnicheskiy institut)

TITLE: Simulation of nonlinear gyroscopic systems ¹

SOURCE: IVUZ. Priborostroyeniye, v. 9, no. 1, 1966, 119-124

TOPIC TAGS: gyro, gyroscope system, gyroscope motion equation

ABSTRACT: A simulation method combined with a method of harmonic linearization is suggested for investigating nonlinear gyro systems. Some motion parameters obtained on a simulator are substituted into the implicit equations that connect motion parameters and instrument parameters. Other motion parameters determined analytically are used as checks for the simulation results. Thus, the formulas resulting from the harmonic linearization serve to determine the direction of further simulator studies intended to find optimal instrument parameters. The above approach requires evaluation of the simulation error, particularly in the problem of the stability range in the controllable-parameter space and in the problem of gyro drift due to small disturbances. The above method is illustrated by numerical example of a two-gyro single-axis gyrostabiliser mounted on a fixed base. Orig. art. has: 3 figures and 16 formulas.

Card 1/1 SUB CODE: 17 / SUBM DATE: 24Jul64 / ORIG REF: 002

JIC: 531.323

TSOY, S.V.; IVANOV, P.P.; SOLNITSYN, B.P.; SEMENOV, V.I.

Automatic circuit breaker. Trudy Inst.gor.dela AN Kazakh.SSR
8:184-186 '61. (MIRA 15:4)
(Dust collectors) (Automatic control)

RUMANIA/Morphology of Man and Animals -

5-5

(Normal and Pathologic), Pathologic Anatomy.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12485

Author : Serbanescu, C., Draghici, D., Solnitzky, A.

Inst : -

Title : The Effect of Intravenous Aluminum Hydroxide on Experimental Animals.

Orig Pub : Bibliot. stiint Ints. Patol. si igiena anim. Ministerul agric. si silvicult., 1955, No 5, 25-33

Abstract : Various laboratory animals (mouse, rat, guinea pig, rabbit, dog) sacrificed 3 hours after an intravenous injection of 0.1 ml of a 10% suspension of aluminum hydroxide displayed reactive changes in the lungs, the liver, the spleen and the kidney. There was a dilatation of the capillary bed and a perivascular infiltration by histiocytic and, to a lesser extent, lymphoid elements. The intensity of the reactions differed in various organs (maximal in the lungs, minimal in the kidney).

Card 1/1

PA

1

Determination of total nitrogen, crude fat and crude cellulose. A. I. Solntsev, J. Gen. Chem. U. S. S. R., 7, 191 (1932). Description of an app. consisting principally of a Kjeldahl flask provided with an extractor and a spiral condenser for the detn. of N, crude fat and crude cellulose. S. I. Alabeksky.

17

NEW YORK METACALPURAL LITERATURE CLASSIFICATION

PROCESS AND PROPERTIES INDEX																									
TEST AND 2ND ORDER													1ST AND 2ND ORDER												
<p>Albumins of the seeds of <i>Dactylis glomerata</i> L. N. Vaichnikov and A. A. Podgorny. <i>J. Applied Chem.</i> (U. S. S. R.) 11, 998-7 (in French) (1938). -- The seeds contained moisture 0.44, ash 8.25, fat 6.79, cellulose 17.45, total N 2.43, albumin N 2.36, and protein 14.75%. Of the protein 6.78% was sol. in H₂O; 12.26% in 10% NaCl soln.; 61.42% in 0.25% NaOH soln.; and 19.34% was insol. in the above solvents. Prolamin extd. from the seeds with 70% alc. soln. and pptd. with 1% NaCl soln. in the amt. of 25.02% (of the total protein), contained 16.27% of N. A. A. Podgorny</p>																									
<p>ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																									
<p>REGION: 1101212101</p>																									
<p>REGION: 1101212101</p>																									

ZBARSKIY, B.I., prof.; ZBARSKIY, I.B.; SOINTSEV, A.I.; STEPANENKO, B.N.,
red.; DEMKINA, A., tekhn. red.

[Laboratory manual of biological chemistry] Praktikum po biolo-
gicheskoi khimii. Moskva, Medgiz, 1949. 223 p. (MIRA 15:4)
(BIOCHEMISTRY—LABORATORY MANUALS)

SOLNTSEV

HI

ZBARSKIY, Boris Il'ich; ZBARSKIY, Il'ya Borisovich; SOLNTSEV, Aleksandr
Ivanovich; STEPANENKO, B.N., redaktor; SENCHILO, K.K., tekhnicheskii redaktor.

[Laboratory manual of biochemistry] Praktikum po biologicheskoi
khimii. 2-e izd., ispr. i dop. Moskva, Gos. izd-vo med. lit-ry,
1954. 347 p. [Microfilm] (MLBA 7:11)
(Biochemistry--Laboratory manuals)

SOLNTSEV, A. I.

Med The incorporation of phosphorus-32 from an inorganic source into milk casein. A. I. Solntsev and G. V. Filatov. *Inest. Timiryazev. Ser. Stok. Akad. 1936, No. 1, 227-8.* P^{32} in the form of Na_2HPO_4 , 10 ml. soln. of 4.5 mc., was injected intramuscularly into a goat. Measurements made on the radioactivity of the milk, manure, and each manure from the milk show that after 2 hrs. the activity in the milk was high, and attained a max. after 6 hrs. The manure also showed activity soon after injection. I. S. Ioffe

2

SOLNTSEV, A.I., kandidat biologicheskikh nauk.

Role of vitamins A, D, B₁, B₂, and B₁₂ in stockbreeding. Izv.
TSKhA no.2:187-192 '56. (MLRA 9:12)

(Vitamins)
(Stock and stockbreeding)

SOLNTSEV, A.I., kandidat biologicheskikh nauk.

Pyrophosphatase activity in the blood of cattle. Izv. TSKhA no. 3:236
'56. (MLRA 10:3)

(Blood--Analysis and chemistry) (Pyrophosphatases)

1961.10.15.17.1.

"Concerning Calcium Metabolism in Ruminants in an Investigation Using Calcium⁴⁵," by A. I. Solntsev and G. V. Filatov, Zhivotnovodstvo (Animal Husbandry), No 12, 1956, pp 53-55 (from Referativnyy Zhurnal -- Khimiya, Biologicheskaya Khimiya, No 8, 25 Apr 57, Abstract No 661, by A. Verloochenko, p 83)

"Three-ml solutions of Ca⁴⁵Cl₂ containing 500 mg Ca were administered intramuscularly into goats. Two hours after this injection, the amount of Ca⁴⁵ excreted per ml milk equalled 6.4 thousand impulses per minute; seven hours after the injection, the activity per one ml milk was 45 thousand impulses per minute; and 24 hours after the injection, it amounted to 60.1 thousand impulses per minute per ml milk.

"Subsequently, calcium radioactivity in the milk commenced to decrease gradually, and in two months it equalled 0.6 thousand impulses per minute per ml milk. During this same period, twice as much Ca⁴⁵ was excreted with the milk as with the feces." (U)

Sum 1451

ZHEREBTSOV, P.I., doktor biologicheskikh nauk, professor; SOLNTSEV, A.I.,
kandidat biologicheskikh nauk, dozent; GEORGIYEVSKIY, V.I.,
kandidat biologicheskikh nauk, assistant.

Effect of nicotinic acid on metabolism in animals. Izv.TSKhA
no.1:140-144 '57. (MIRA 10:7)
(Metabolism) (Nicotinic acid)

USSR/General Biology - Physical Chemical Biology.

B

Abs Jour : Ref Zhur Biol., No 6, 1959, 2348b

Author : Solntsev, A.I.

Inst : Agricultural Academy imeni K.A. Timiryazeva

Title : On the Chemical Nature of Enzymes.

Orig Pub : Dokl. Mosk. s.-kh. akad. im. K.A. Timiryazeva, 1957,
vyp. 30, ch. 2, 46-52

Abstract : Review of old and new literature on the protein nature of enzymes. The role of coenzymes (cocarboxylase and codehydrases I and II and coenzyme A) and cytochromic system in tissue respiration is pointed out. The participation of some vitamins and metals - Fe, Cu and Zn - in the structure of enzymes is noted. -- V.A. Dorfman

Card 1/1

SOLOVTSKY, A.I., dots., kand. biol. nauk

Chemical nature of ferments [with summary in English]. Izv. TSKhA
no. 5:217-222 '58. (MIRA 11:11)

(Fermentation)

ZHEREBTSOV, P.I., prof., doktor biol. nauk; SOLNTSEV, A.I., dots., kand. biol. nauk.

Role of ascorbic acid in the metabolism of animal organism [with summary in English]. Izv. TSKhA no.6:177-182 '58. (MIRA 12:1)
(Ascorbic acid--Physiological effect)
(Metabolism)

SAKIN, I.L.; RESHINA, I.I.; SOLNTSEV, A.I.

Double monochromators. Opt.-mekh.prom. 25 no.4:2-8 Ap '58.
(MIRA 11:10)

(Monochromators)

ZHEREBTSOV, P.I., doktor biologicheskikh nauk, prof.; SOLNTSEV, A.I.,
kand.biologicheskikh nauk, dotsent

Role of riboflavin in the metabolism of animals. Izv. TSKhA no.2:
213-216 '60. (MIRA 14:4)
(Riboflavin) (Metabolism)

SOLNTSEV, A.I., kand.bilogicheskikh nauk, dotsent; MUKHINA, N.A.

Present-day views on the biochemistry of milk carbohydrates. Izv.
TSKha no.6:198-203 '60. (MIRA 13:12)
(MILK--COMPOSITION) (CARBOHYDRATES)

ZHEREBTSOV, P.I., prof., doktor biolog.nauk; SOLNTSEV, A.I., dotsent, kand.biolog.nauk.

Fermentative activity of an isolated section of rumen. Izv. TSsHA
no.1:92-96 '61. (MIRA 14:3)
(Rumen)

ZBARSKIY, Boris Il'ich, prof.[deceased]; ZBARSKIY, Il'ya Borisovich;
SOLNTSEV, Aleksandr Ivanovich; DEBOV, S.S., red.; BUL'DYAYEV,
N.A., tekhn. red.

[Laboratory work in biochemistry] Praktikum po biologicheskoi
khimii. 3. izd., ispr. i dop. Moskva, Medgiz, 1962. 279 p.
(MIRA 15:7)

1. Kafedra biologicheskoy khimii Pervogo Moskovskogo meditsin-
skogo instituta (for Zbarskiy, B.I., Zbarskiy, I.B., Solntsev).
(Biochemistry--Laboratory manuals)

ZHEREBTSOV, P.I., doktor biologicheskikh nauk, prof.;
SOLNTSEV, A.I., kand.biologicheskikh nauk, dotsent

Studying lipolysis and the ~~unsaturation degree of "buds"~~
fat in the rumen of calves. Izv. TSKHA no.2:214-217
'62. (MIRA 15:9)

(Lipolysis) (Rumen)
(Calves)

SOLNTSEV, A.I., kand.biologicheskikh nauk, dotsent; MUKHINA, N.A.;
P'YESHCHAK, M.Yu., aspirant

Role of lactose in animal feeding. Izv. TSKHA no.3:228-232
'62. (Feeding) (Lactose) (MIRA 15:9)

ZHEREBTSOV, P.I., doktor biolog. nauk, prof.; SOLNTSEV, A.I., kand.
biolog. nauk, dotsent

Vitamins in animal husbandry. Izv. TSKHA no.1:79-90 '63.
(MIRA 16:7)

(Vitamins) (Veterinary physiology)

SOLNTSEV, A.I., kand.biolog. nauk, dotsent; SUSOVA, N.I., assistant

Nitrogen metabolism in the rumen of ruminants. Izv. TSKHA no.3:
234-236 '63. (MIRA 16:9)
(Nitrogen metabolism) (Rumen)

ZHEREBTSOV, P.I., ~~do~~ktor biolog. nauk; SOLNTSEV, A.I., kand. biolog. nauk;
MUKHINA, N.A., kand. biolog. nauk, dotsent

Carbohydrate metabolism in the rumen of ruminants. Izv. TSKHA
no.4:134-143 '63. (MIRA 17:1)

BERENSON, A.A., prof. doktor biol. nauk; SOLOVYOV, A.I., doktor biol. nauk; VERIN, V.F., starshiy nauchnyy sotrudnik, kand. biol. nauk

Effect of nitrates on the organism of ruminants. Izv. TSRS
no.6:148-155 '64 (MIRA 18:1)

1. Kafedra fiziologii i biokhimii sel'skokhoz. zhivotnykh,
Moskovskoy ordena Lenina sel'skokhozyaystvennoy akademii imeni
K.A. Timiryazeva.

ZHEREBTSOV, P.I., prof. doktor biol. nauk; SOLENTSEV, A.I.; dotsent,
kand. biolog. nauk

Ammonia metabolism in ruminants. Izv. TSKHA no. 1:145-149
'65 (MIRA 19:1)

1. Kafedra fiziologii i biokhimi sel'skokhozyaystvennykh
zhivotnykh Moskovskoy sel'skokhozyaystvennoy ordena Lenina
akademii imeni Timiryazeva.

SOLOVTSKY, A.M.

FERRO-CONCRETE SECTIONAL SLABS FOR SHAFT LINING. Solntsev, A.M.
 (Izv. Vuzov, 1955, 46-47). The slabs described are made in
 prefabricated edgers, 1000 mm high, 90 mm thick, and 200 mm
 wide. They are laid on the inside of the shaft and 20 mm wide on the
 outside. The slabs are erected by means of ordinary timber
 formwork. The slabs are anchored to the concrete lining of the shaft wall and
 provide a smooth facing. At present the use of ferro-concrete slabs
 is more expensive than that of timber lagging, but it is expected that
 the cost will be considerably reduced as soon as production methods have been
 rationalized. Considerable improvements in the speed and quality of shaft
 lining have already been achieved. (L). N.C.B.

SOLNTSEV, A.M., inzh.

Rapid sinking of a vertical shaft at the Maganok Mine in the
Kuznetsk Basin. Shakht.stroi. 6 no.4:22-25 Ap '62. (MIFA 15:4)
(Kuznetsk Basin--Shaft sinking)

Leont'yev, A.A., kand. tekhn. nauk; KOSAREV, N.F., inzh.; SOLOVYEV, A.A.;
Zaitsev, V.I.

regia shaft sinking at the No.2 "Abashevskaya" coal mine. Shakht.
Sred. 9 no.8:21-24 Ag '65. (MIRA 18:8)

1. Kemerovskiy gornyy institut (for Leont'yev). 2. Novokuznetskoye
shakhtostroyeniye (for Kosarev). 3. Nauchno-issledovatel'skiy
institut stroitel'stva ugol'nykh i gornorudnykh predpriyatiy,
Kemerovo (for Solntsev, Kalabin).

SOLNTSEV, A. M.

A. M. Solntsey, G. P. Mikhaylov, and Ye. I. Bobrov "Use of Automatic Three-phase Arc Welding in Car Building," *Avtogen. Delo*, No. 6, 1949.

So Low isey, A.M.

12(5); 26(1) PAGE 1 BOX EXPLODANT 506/2776

Source v shkolnikovskiy avtomatiko, telemechanika i svyazi; sbornik statyi (New Developments in Railroad Automation, Remote Control and Communications; Collection of Articles) Moscow, Transportnoy, 1959, 196 p. 3,000 copies printed.

Ms. (Title page): B.S. Ryumin, Candidate of Technical Sciences, and A.M. Ryumin, Engineer; Ed. (Inside book): G.I. Muravov, Engineer; Tech. Ed.: G.I. Voronin.

Summary: This collection of articles is intended for engineers and technicians specializing in railroad automatic and remote control and communications.

Contents: The articles in this book concern the following problems: the application of automatic control in the electric power supply of automatic block-signaling systems; the construction of electric interlocking systems in signaling yards of railroads; modernization of route control systems; the construction of route control systems with a relay-electromechanical system of automatic block-signaling systems; the construction of track circuits of automatic block-signaling systems and telephone networks of overhead communication lines; the construction of automatic block-signaling systems of railroads. A radio device for measuring the speed of railroad cars on slopes and a signaling system for railways are described. Some data are also given from non-Soviet periodicals on automatic and remote control systems and communications and on railroads in the United States. There are no references.

100. Ryumin, B.S., Engineer. Relay-Electromechanical System of Automatic Block Signaling 59

The author describes a system of semi-automatic block signals called "relay-electromechanical" which was developed in 1965-1967 at the Dnepropetrovsk Railway, and which was found to work satisfactorily on a few runs.

101. Ryumin, B.S., Engineer. Radio Relay System in Route Control Systems 75

The author is of the opinion that the radio-control system of Engineers Belavich and Grigorenko, widely used in the USSR, applies only to small railroad stations. For large railroad stations and sidings a radio relay system was developed for the purpose of increasing the capacity of the existing system and of all-weather operation. Operation of this system for five years gave satisfactory results. A description of the system is given.

102. Ryumin, B.S., and Ryumin, A.M., Engineers. Radio Control Systems of the Signaling Type 69

The Main Office of the Main Administration of Signaling and Communications of the Ministry of Transport in 1957 developed a new system of route control. This system consists of standard radio-relay arrangements (with route and signal control locks) and central tower equipment. The authors describe the system in detail.

103. Ryumin, A.M., Engineer. Signaling System on Subway Lines 102

The author describes the two-aspect signaling system used in the Moscow and Leningrad subways.

104. Ryumin, A.M., Engineer. Radar Device for Measuring Speed 119

In 1957 the Dnepropetrovsk Railway started the development of a system of automatic speed measurement of railroad cars in the USSR. In 1957 the experimental model of the radar device (RD-1) type was developed. A radar meter of the RD-1 type was developed and tested under operating conditions. The author describes these devices, which were built on the Doppler-effect principle.

105. Ryumin, A.M., Engineer. New Data on the Effect of the Contact Wire Jervent of the Electric Railroads on Telephone Circuits of Overhead Communication Lines 130

At the TUETI NPI studies of the causes of the disturbing effects of 4-4 contact wire networks on long-distance service channels are being conducted, and methods for the suppression of these disturbances are planned. The author describes the initial results of this investigation.

106. Ryumin, A.M., Candidate of Technical Sciences. Development of Automatic and Remote Control on Railroads in the USSR 137

This is a descriptive article of achievements in the USSR in the above field during the last 3 to 5 years.

107. Ryumin, A.M., Engineer. Communications on Railroads in the USSR 175

This is a descriptive article on the various types of communications systems on railroads in the USSR.

TROYANOVSKIY, Vasil'y Vasil'yevich; SOLNTSEV, A.M., inzhener, retsenzent;
SIDOROV, N.V., inzhener, redaktor; POPOVA, S.M., tekhnicheskii
redaktor

[Electric clocks] Elektricheskie chasy. Izd. 3-e, perer. i dop.
Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956.
226 p. (MIRA 9:8)

(Clocks, Electric)

SOLNTSEV, A.M.

Use of monolytic rubber half heels for men's fancy footwear.
Kosh.-obuv.prom. 4 no.12:29-30 D '62. (MIRA 16:1)
(Shoe manufacture)

NEZLIN, M.V.; SOLNTSEV, A.M.

Acceleration of ions in plasma beams. Zhur. eksp. i teor. fiz.
45 no.4:840-849 0 '63. (MIRA 16:11)

L 12147-66 EWT(1)/ETC(F)/EPF(n)-2/ENG(m) IJP(c) AT

ACC NR: AP6000188

SOURCE CODE: UR/0056/65/049/005/1377/1388

AUTHOR: Nezlin, M. V.; Solntsev, A. M.

ORG: none

TITLE: On discrete states of a plasma beam and transitions between them

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 5, 1965, 1377-1388

TOPIC TAGS: plasma beam interaction, plasma electron temperature, plasma oscillation, plasma velocity, plasma instability

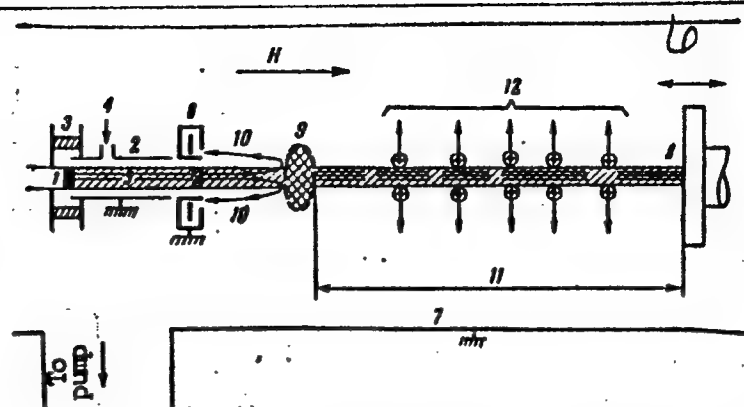
ABSTRACT: This is a continuation of earlier work (ZhETF v. 48, 1237, 1965 and other papers) dealing with the unique instability exhibited under certain conditions by a cold plasma column when broached by a beam of accelerated primary electrons. Whereas the earlier studies were confined to limited ranges of the primary and secondary electron velocities, in the present article the authors studied experimentally the states of the beam for a great variety of primary/secondary density ratios. Another purpose of the investigation was to determine the frequency spectrum of the oscillations produced in the beam during all its states, and the dependence of this spectrum on the form of the beam-electron velocity distribution function. The experimental setup (Fig. 1) was such that the anode could be moved both longitudinally and transversely to determine the electron and ion distribution. The plasma source was described in the earlier paper. Two operating modes were employed, that of the direct arc and of the reflecting arc. The apparatus is described in detail. The magnetic field could

Card 1/2

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ACC NR: AP6000188

Fig. 1. Experimental setup. 1--discharge cathode, 2--discharge chamber, 3--insulator, 4--gas inlet, 5--beam, 6--ring, 7--vacuum chamber, 8--anode, 9--virtual cathode, 10--electron-beam trajectory at instant of virtual cathode formation, 11--region of positive potential, 12--accelerated ions.



be varied from 1000 to 5000 oe, and was 1400 oe in most experiments. The gas in most experiments was argon. The tests showed that the transition from the macroscopically stable state to the state with virtual cathode is effected in two steps, during which appreciable changes take place in the plasma-particle energies, oscillation frequencies, and the beam radial dimensions and potential. These instabilities remain of the same character when the velocity distribution function of the fast electrons becomes completely disordered. The results are compared with those by others and certain similarities noted. Authors thank A. B. Mikhaylovskiy for stimulating discussions and W. Piffel for taking part in some of the measurements. Orig. art. has: 9 figures and 3 formulas.

SUB CODE: 20/ SUBM DATE: 08Apr65/ ORIG: REF: 009/ OTH REF: 003
Card 2/2 +1W

SOLNTSEV, A. M.

SOLNTSEV, A. M.: "Restorative operations in the jaw and face region using cartilage from corpses". Kiev, 1955. Odessa State Medical Inst. (Dissertations for the Degree of Candidate of Medical Sciences)

SO: Knizhnaya letopis', No. 52, 24 December, 1955. Moscow.

SOLOVTSKY, A.M.

Prefabricated reinforced concrete forms for the support of
vertical shafts. Ugol' 30 no.11:40-41 N '55. (MIRA 9:2)

1. Trest Chelyabinskakhtostroy.
(Shaft sinking) (Chelyabinsk Basin--Mine timbering)

SOLNTSEV, A.M.

Plastic surgery of the helix using a shaping membrane.

Stomatologiya 35 no.4:34-35 Ji-Ag '56

(MLRA 10:4)

1. Iz kafedry chelyustno-litsevoy khirurgii (zav.-prof. M.M. Velikanova) Kiyevskogo instituta usovershenstvovaniya vrachey (dir.-zasluzhennyy deyatel' nauki prof. I.I. Kal'chenko) i 1-go Respublikanskogo chelyustno-litseвого gosпитalya dlya invalidov Otechestvennoy voyny (nachal'nik M.O. Brudnyy)
(EAR--SURGERY)

SOLNTSEV, A.M.

Subcutaneous emphysema as a complication following tooth
extraction. Stomatologiya 35 no.5:55-56 S-O '56 (MLRA 10:4)

1. Iz kafedry chleyustno-litsevoy khirurgii i stomatologii (zav.-
prof. M.M. Velikanova) Kiyevskogo instituta usovershenstvovaniya
vrachey (dir.-prof. I.I. Kal'chenko)
(~~TEETH--~~EXTRACTION) (EMPHYSEMA)

SOLNTSEV, A.M., kand.med.nauk, YAMPOL'SKAYA, Z.K.

Surgery for lacrimal fistulas. Vrach.delo no.4:425-427 Ap'58
(MIRA 11:6)

1. Kafedra chelyustno-litsevoy khirurgii (zav. - prof. M.M.
Velikanova) Kiyevskogo instituta usovershenstvo-vaniya vrachey.
(SALIVARY GLANDS--SURGERY)
(PISTULA)

SOINTSEV, A.M., kand.med.nauk (Kiyev, ul. Lenina, d.50, kv. 8)

Homoplastic implantations of different kind of cartilage; experimental investigation. Nov.khir.arkh. no.6:58-62 N-D '58.

(MIRA 12:3)

1. Kafedra patologicheskoy anatomii (zav. - zasl. deyatel' nauki prof. M.K. Dal') Kiyevskogo instituta usovershenstvovaniya vrachey.
(CARTILAGE--TRANSPLANTATION)

SOLNTSEV, A.M., kand.med.nauk

Formation of the auricula on an acrylate framework. Vrach.delo
no.7:737-738 J1'58 (MIPA 11:9)

1. Kafedra chelyustno-litsevoy khirurgii (zav. - prof. E.A. Aleksandrova)
Kiyevskogo instituta usovershenstvovaniya vrachey.
(EAR--SURGERY)

SOINTSEV, A.M., kand.med.nauk

Possibility of using costal cartilage from cadavers of children in plastic operations on the face. Stomatologiya 37 no.2:66 Mr-Apr '68.
(MIRA 11:5)

1. Iz kafedry chelyustno-litsevoy khirurgii (zav.-prof. M.M. Velikanova) Kiyevskogo instituta usovershenstvovaniya vrachev (dir.-zasluzhennyy deyatel' nauki I.I. Kal'chenko).
(FACE--SURGERY) (CARTILAGE--TRANSPLANTATION)

SOLNTSEV, A.M., kand.med.nauk; VOLYNETS, O.I.

Observation of marble disease (osteopetrosis) in the lower extremities. Vrach,delo no.11:1199 N '59. (MIRA 13:4)

1. Kafedra chelyustno-litsevoy khirurgii (zaveduyushchiy - prof. N.A. Aleksandrova) Kiyevskogo instituta usovershenstvovaniya vrachey, i gorodskaya klinicheskaya bol'nitsa.
(EXTREMITIES, LOWER--DISEASES) (BONES)

SOLOVYOV, A.M., dotsent

Odontogenic thrombosis of the cavernous sinus. Vrach.delo no.2:
183-185 # '60. (MIRA 13:6)

1. Kafedra chelyustno-litsevoy khirurgii i stomatologii (sav. -
prof. N.A. Aleksandrova) Kiyevskogo instituta usovershenstvo-
vaniya vrachev. (CAVERNOUS SINUS--DISEASES)

SOLNTSEV, A.M.; VAYSBLAT, I.N.

Medical procedure in the case of unintentional opening of the antrum.
Probl. stom. 5:260-267 '60. (MIRA 15:2)

1. Kiyevskiy meditsinskiy institut usovershenstvovaniya vrachey.
(ANTHRUM SURGERY)

SOLNTSEV, A.M.

Reduction of the fracture pieces in old fractures of the maxilla.
Probl. stom. 5:303-307 '60. (MIRA 15:2)

1. Kiyevskiy institut usovershenstvovaniya vrachey.
(JAWS--FRACTURE)

SOLNTSEV, A.M. (Kiyev)

Surgical treatment of odontogenic highmoritis. Probl.stom. 6:
223-230 '62. (MIRA 16:3)
(MAXILLARY SINUS—DISEASES) (TEETH—DISEASES)

SOLNTSEV, A.M., dotsent

Mandibular necrosis due to circulatory insufficiency. Vrach.
delo no.2:145-146 F '62. (MIRA 15:3)

1. Kafedra chelyustno-litsevoy khirurgii i stomatologii (zav. -
prof. E.A. Aleksandrova) Kiyevskogo instituta usovershenstvovaniya
vrachey.

(BLOOD--CIRCULATION, DISORDERS OF)
(JAW--DISEASES)

SOLNTSEV, A.M., dotsent

Cheloid of the ear lobe. Zhur. ush., nos. i gorl.bol. 22 no.1:
85-86 Ja-F '62. (MIRA 15:5)

1. Iz kafedry chelyustno-litseyoy khirurgii i stomatologii (zav. -
prof. E.A.Aleksandrov) Kiyevskogo instituta usovershenstvovaniya
vrachey.

(EAR—TUMORS)

SOLNTSEV, A.M., dotsent

Some characteristics of odontogenic highmoritis. Zhur.ush., nos.1
gorl.bol. 22 no.2:11-15 Mr-Apr '62. (MIRA 15:11)

1. Iz kafedry chelyustno-litsevoy khirurgii (zav. - prof. E.A.
Aleksandrova) Kiyevskogo instituta usovershenstvovaniya vrachey.
(MAXILLARY SINUS—DISEASES) (TEETH—DISEASES)

SOLNTSEV, A.M., inzh.

Sudden rock caving during the sinking of a mine shaft. Bezop.troda v
prom. 7 no.1:9-11 Ja '63. (MIRA 16:2)
(Shaft sinking) (Mine accidents)

SOLNTSEV, A.M., inzh.; USENKO, A.S., inzh.

Rapid vertical shaft sinking in the Kuznetsk Basin. Shakht.stroi.
7 no.5:17-19 My '63. (MIRA 17:4)

1. KuzNIIshakhtostroy (for Solntsev). 2. Stroitel'noye
shakhtoprokhodcheskoye upravleniye No.1 tresta Prokop'yevskshakhtostroy
(for Usenko).

SOLNTSEV, A.M., inzh.

Shaft sinking with the use of advance boreholes. Shakht. stroi. 8
no.8:23-25 Ag '64. (MIA 17:9)

1. Nauchno-issledovatel'skiy institut stroitel'stva ugol'nykh i
gornorudnykh predpriyatiy.

COLITSEV, Aleksey Mikhaylovich; SENCHENKO, G.I. [S. Senchenko, G.I.],
red.

[Use of preserved cartilage in plastic facial surgery] Za-
stosuvannia konservovanoho khriaskcha pry plastychnykh ope-
ratsiakh na oblytchi. Kyiv, Zdorov'ia, 1964. 131 p.
(MIRA 18:2)

BOINTSOV, A.M., dotsent (Kiyev)

Conductor anesthesia in surgery on the maxilla in young children.
Probl. chel.-lits. khir. no.1:26-29 '65.

Pathological anatomy of osteomyelitis of the maxilla in newborn
infants and young children. Ibid.:157-168

(MIRA 18:10)

L 2341-66 EWT(1)/ETC/EPF(n)-2/EPA(w)-2/EWG(m) IJP(c) AT
 ACCESSION NR: AT5022111 UR/3136/65/000/855/0001/0015

AUTHORS: ^{44,65}Nezlin, M. V.; ^{44,55}Solntsev, A. M. ^{21 44,55}

TITLE: On the discrete states of a plasma beam and transitions between them ⁵²
^{4/6}
^{B+1}

SOURCE: Moscow. Institut atomnoy energii. /Doklady/, IAE-855, 1965. O diskretnykh sostoyaniyakh plazmennogo puchka i perekhodakh mezhdu nimi, 1-15

TOPIC TAGS: plasma magnetic field interaction, plasma beam instability, plasma concentration, plasma instability, plasma research

ABSTRACT: The present investigation is an extension of the work on plasma beam instability by the senior author (ZhETF, 46, 36, 1964). The behavior of a plasma beam permeated by a flux of primary electrons at conditions $\alpha \approx \alpha_K$ was investigated. Here $\alpha = \frac{n_2}{n_1}$ and $\alpha_K = \frac{v_1}{v_2}$ where n_1, v_1, n_2, v_2 are the density and velocity of primary and secondary electrons respectively. The effect of the primary electron velocity distribution on the plasma stability was also investigated. The experimental methods used were described previously (see above reference). The experimental results for the radial ion current density and the volt-ampere characteristics of plasma beams at different conditions are shown
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L 2341-66

ACCESSION NR: AT5022111

6

graphically (see Fig. 1 on the Enclosure). It is concluded that the plasma is characterized by three different states: State I - $Q > Q_2$, II - $Q_1 > Q > Q_2$, III - $Q < Q_1$, where Q is the amount of argon used in the plasma source. It was found that changing the primary electron velocity distribution even to the point when the latter become completely random had no effect on the stability of the plasma beam. The authors thank A. B. Mikhaylovskiy for stimulating discussions. Orig. art. has: 5 graphs and 2 equations. *44,55*

ASSOCIATION: Institut atomnoy energii im. I. V. Kurchatova (Institute for Atomic Energy)

SUBMITTED: 00

ENCL: 02

SUB CODE: NP

NO REF SOV: 009

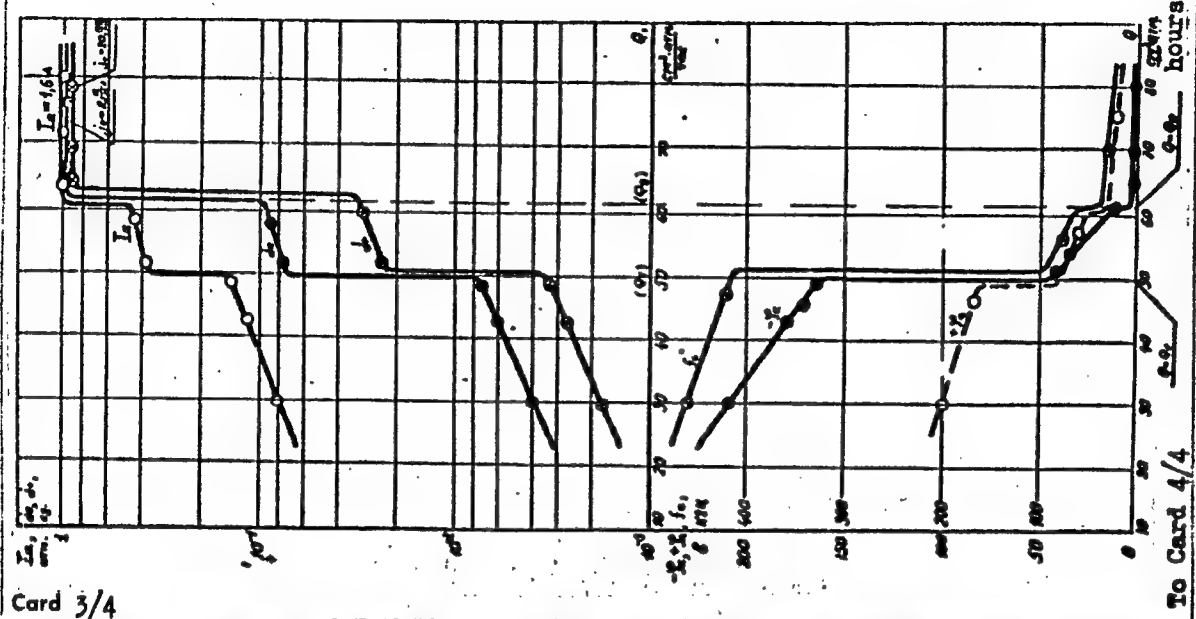
OTHER: 001

Card 2/4

L 2341-66

ACCESSION NR: AT5022111

ENCLOSURE: 01



L 2341-66

ACCESSION NR: AT5022111

ENCLOSURE: 02

From Card 3/4

Dependence of total anode electron current I_a , electron density J_e , ion density J_+ , the floating potential of the ring electrode ϕ_k , the beam potential in the median plane of the installation ϕ , and fo the first harmonic in the linear vibrational spectral region, on the amount of argon used in the plasma source (Q). V_p discharge potential = 200 v, discharge current $I_p = I_a$, H the magnetic field strength = 1400 oerst. $P = (0.5 - 1) \times 10^{-5}$ mm Hg, L length of beam 150 cm

Lab

Card 4/4

ACC NR: AT6001615

SOURCE CODE: UR/3136/65/000/932/0001/0029

AUTHOR: Nezlin, M. V.; Sapozhnikov, G. I.; Solntsev, A. M.

ORG: none

TITLE: Long-wave electron oscillations in a beam-plasma system

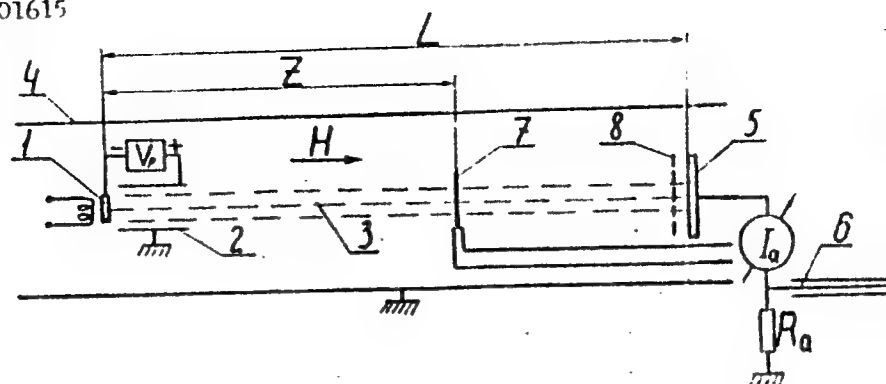
SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-932, 1965.
Dlinnovolnovyye elektronnyye kolebaniya v sisteme puchok-plazma, 1-29

TOPIC TAGS: electron oscillation, plasma, electron beam

ABSTRACT: As previous experimental investigations (e.g., C. C. Cutler, Proc. IRE, 44, 61, 1956) of r-f oscillations in electron beams propagating in vacuum were desultory, the present experiments have been conducted to obtain a systematic picture of the oscillations spectrum, nature, and excitation mechanism. A beam of electrons 3 emitted by W heater-type cathode 1 (see figure) was accelerated by electrode 2 to a few hundred ev and traveled along a strong

Card 1/3

ACC NR: AT6001615



Experimental outfit

Card 2/3

ACC NR: AT6001615

magnetic field, in an equipotential space, along the axis of metal-wall cylinder 4. A movable anode 5 permitted adjusting the beam length within 10–150 cm; other components: 6 - measurement cable, 7 - needle probe, 8 - grid, R_a - measurement resistance; hydrogen pressure, 10^{-6} – 10^{-4} torr; magnetic field, 1000–5000 oe. Spectra of electron-current oscillations at the anode and at the probe were measured. A plasma was formed as a result of gas ionization by the beam, the plasma density being commensurate with that of the beam. The spectrum of these non-Langmuirian oscillations consists of a number of harmonics whose wavelengths obey the formula: $\lambda_n = 2L/n$ (where n is the number of the harmonic and L is the beam length) and whose frequencies ω_n are determined by the beam-electron velocity V in this way: $\omega_n \approx K_n V$, where $K_n = 2\pi/\lambda_n$. The experiments corroborate the theory of longitudinal electron oscillations in a homogeneous beam-plasma system having limited longitudinal and transverse dimensions. Orig. art. has: 11 figures and 20 formulas.

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 008 / OTH REF: 009

Card 3/3

L 58145-65 ENT(1)/EPF(n)-2/ENG(m)/EPA(w)-2 Pz-6/Pe-4/Pab-10/Pi-4 LJP(c)

WW/AT

ACCESSION NR: AP5013881

UR/0056/65/048/005/1237/1247

AUTHOR: Nezlin, M. V.; Solntsev, A. M.

TITLE: Unstable plasma beam 21

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 5, 1965, 1237-1247

TOPIC TAGS: plasma instability, plasma turbulence, plasma spectrum, plasma particle acceleration

ABSTRACT: This is a continuation of a systematic study of the properties of an unstable plasma beam, started by the authors earlier (ZhETF v. 45, 840, 1963 and elsewhere). The purpose of the work was to determine the conditions under which the plasma beam becomes unstable, as a function of such parameters as the energy of the fast electrons and the mass of the ions, and to study the electric fields and the character of motion of the charged particles in a plasma with fast ions, produced by an unstable plasma beam in a trap with magnetic mirrors. All the experiments were carried out with the apparatus described in the earlier paper, in magnetic fields ranging from 1000 to 5000 Oe. The experiments were carried out in two dis-

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L 58445-65

ACCESSION NR: AP5013881

charge modes, continuous and pulsed. The results show that the plasma turbulent state is characterized by: a) a broad electric-field oscillation spectrum, which includes the ion Larmor frequency and which makes it possible to carry out multiple (stochastic) acceleration of the ions to kilovolt energies, b) the formation of a strongly eccentric plasma torch rotating on the "ion" side with a frequency of several times 10 kcs, and c) acceleration of the ions not only in the transverse but also in the longitudinal direction. The conditions for the transition of the beam to a stable state in which particle acceleration does not occur are considered. The results are compared with data by others. "The authors thank M. S. Ioffe and Ya. B. Faynberg for useful discussions, and Ye. K. Yeroshchenkov for participating in some of the experiments." Orig. art. has: 9 figures and 4 formulas.

ASSOCIATION: None

SUBMITTED: 18Dec64

ENCL: 00

SUB CODE: ME

NR REF SOV: 011

OTHER: 003

281

Card 2/2

NEZLIN, M.V.; SOLNTSEV, A.M.

Discrete states of a plasma beam and the transitions between
them. Zhur.skep. i teor.fiz. 49 no.5:1377-1388 N '65.
(MIRA 19:1)

L 235/0-DE

ACC NR: AP6005385 (A)

SOURCE CODE: UR/0413/66/000/001/0131/0131

2
B

INVENTOR: Piskorskiy, G. A.; Polishchuk, V. N.; Solntsev, A. M.

ORG: none

TITLE: Vibratory vacuum type conveyor for air-tight flat parts. Class 49, No. 177751

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 131

TOPIC TAGS: conveyor, vacuum type conveyor, vibratory conveyor

ABSTRACT: An Author Certificate has been issued for a vibratory vacuum-type conveyor for airtight parts. To ensure piece-by-piece delivery of flat airtight parts, the middle part of the vibratory chute is made with holes, and under it there is a receptacle connected with all the holes by hoses, a dust collector and a pulsatory vibrating contactor with a vacuum pump to provide the pulsatory action of the suckers (see Fig. 1). Orig. art. has: 1 figure. [LD]

Card 1/2

UDC: 621.867-26

L 29878-66

ACC NR: AP6005385

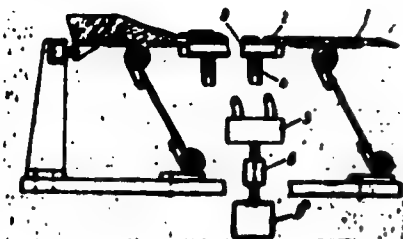


Fig. 1. Vibratory vacuum conveyor for flat air-tight parts

1 - vibratory chute; 2 - holes; 3 - receptacle;
4 - hoses; 5 - dust collector; 6 - pulsatory
vibratory contactor; 7 - vacuum pump.

SUB CODE: 13/ . SUBM DATE: 07May63

Card 2/2 *fv*

L 16581-66 ENT(1)/ETC(f)/EPF(n)-2/ENG(m) IJP(c) AT

ACC NR: AP6007215

SOURCE CODE: UR/0056/66/050/002/0349/0363

AUTHOR: Nezlin, M. V.; Sapozhnikov, G. I.; Solntsev, A. M.

ORG: none

TITLE: Long wave electron oscillations in a beam-plasma system

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 2, 1966, 349-363

TOPIC TAGS: electron oscillation, electron beam, plasma beam, plasma beam interaction, longitudinal magnetic field, gas ionization, gas pressure, excitation spectrum

ABSTRACT: Long wave electron oscillations excited by an electron beam in a rarefied plasma in the presence of a strong longitudinal magnetic field are investigated experimentally. The plasma is produced as a result of ionization of the gas by the beam. The gas pressure $\sim 10^{-5}$ mm Hg and the plasma density is comparable with that of the beam. The oscillations observed are not Langmuir oscillations. Their spectrum consists of a number of harmonics, the wavelengths of which (λ_n) obey the relation $\lambda_n = 2L/\lambda_n$ (n is the harmonic number and L is

Card 1/2

92
90
B

2

L 16581-66

ACC NR: AP6007215

2

the beam length). The frequencies ω_n are defined by the velocity of the beam electrons (v) and the wavelength: $\omega_n \sim k_n v$ where $k_n = 2\pi/\lambda_n$. It is shown that the excitation conditions of the oscillations and their spectral characteristics are in good agreement with the theory of longitudinal electron oscillations in an homogeneous beam-plasma system with restricted longitudinal and transverse demensions. The authors take the opportunity to express their appreciation to Ya. B. Faynberg for his interest in this work and for his useful comments, and A. Ye. Bazhanova for providing the roots of dispersion equations with the aid of a computer. Orig. art. has: 11 figures and 6 formulas. [Based on author's abstract]

SUB CODE: 20/ SUBM DATE: 27Aug65/ ORIG REF: 008/ OTH REF: 010/

Card 2/2

ACC NR: AP7004568

SOURCE CODE: UR/0056/65/049/005/1377/1388

AUTHOR: Nezlin, M. V.; Solntsev, A. M.

ORG: none

TITLE: Discrete states of a plasma beam and the transitions between them

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 5, 1965, 1377-1388

TOPIC TAGS: plasma beam, electron beam, fast electron

ABSTRACT: It was shown by the authors in earlier articles that a plasma beam consisting of a cold plasma column and a fast electron stream which permeates this column undergoes a transition from a macroscopically steady state to a virtual cathode state when there is a decrease in the ratio of the densities of these components. The purpose of the experiments described in the present article was to investigate the question of the state of the plasma beam in the region of intermediate values of α , as well as to investigate the frequency spectrum of the oscillations occurring in the beam in all its states and the question of the relationship between this spectrum and the form of the velocity distribution function of the beam electrons. Argon and hydrogen were used as the working gases in the experiments. An orificed electrode and three Langmuir probes were used to measure the frequency spectrum of the oscillations.

Card 1/2

ACC NR: AP7004568

The article shows that the transition occurs as the result of two jumps between three discrete states, during which there is a significant increase in the energies of the plasma particles and the radial dimensions of the beam and its potential. The oscillation spectrum is shown to consist of a line section and a continuous section, with an increase in oscillation frequencies during the transition jumps. It is found that there is no significant change in the oscillation spectrum in any of the three discrete plasma beam states, even if the fast electron velocity distribution function becomes disordered. This result is of interest in connection with the question as to whether and to what extent the plasma beam instability here under consideration is associated with the "ordinary" beam instability which occurs in the presence of "order" in electron motion in a velocity space. A definite answer to this question requires an investigation of high-frequency electronic ("Langmuir") oscillations in all three plasma beam states, and such an investigation is under way at the present time by the authors. The authors express their appreciation to A. B. MIKHAYLOVSKIY for "stimulating discussions" and to V. PIFFL for having taken part in some of the measurements. Orig. art. has: 9 figures and 3 formulas.
[JPRS: 34,657]

SUB CODE: 20 / SUBM DATE: 21Jul65 / ORIG REF: 009 / OTH REF: 003

Cord 2/2

BURENKOVA, N.I., inzhener; SOLNTSEV, A.V., inzhener.

New dredging pump. Mekh.stroi. 14 no.3:28 Mr '57.

(MIRA 10:4)

(Dredging machinery)

SOLNTSEV, A. V., Cand Geol-Min Sci -- (diss) "Subterranean waters of the eastern part of Akmolinskaya Oblast." Alma-Ata, 1958. 15 pp (Acad Sci Kazakh SSR, Inst of Geol Sci), 107 copies (KL, 35-58, 106)

SOLNTSEV, A.V.

Ground water in the alluvial deposits of Akmolinsk District and
prospects for its utilization in water supply. Vest. AN Kazakh.
SSR 14 no.1:62-70 Ja '58. (MIRA 11:2)
(Akmolinsk District--Water, Underground)

SOLNTSEV, A.V.

Method of determining water inflows in mining. Trudy Alt.GMNI
AN Kazakh.SSR 12:152-156 '62. (MIRA 15:8)
(Mine water)

... of the ... related to ...
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SOLOVYOV, A.V.

Formation of the chemical composition of underground waters
in the Tselinograd region. Trudy Inst. geol. nauk AN Kazakh.
SSR no.14:194-202 '65. (MIRA 19:1)

06540
SOV/142-2-2-16/25

9(2,3)
AUTHORS: Vorob'yev, A.A., Solntsev, B.A., and Titov, V.N.

TITLE: The Application of an Electrode Electric Field for
Electron Acceleration in a Synchrotron

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika,
1959, Vol 2, Nr 2, pp 246-247 (USSR)

ABSTRACT: Coaxial cavity resonators found the most wide-spread
application as electron accelerators in electron syn-
chrotrons with annular electromagnets. They were
first used by F.K. Goward and D.E. Barnes in 1946.
Resonators of this type occupy a part of the pole gap
of the electromagnet. Therefore, the outer conductor
cannot have sufficiently large dimensions compared to
the inner one. Further, bending of the resonator can-
not be avoided. These conditions reduce the resonance
to a considerable degree. The introduction of high-
quality dielectrics into the resonator cavity [Ref 1,
2, 3] does not produce a considerable increase of the
parallel resistance. In 1948, at the Tomskiy poli-
tekhnicheskii institut imeni S.M. Kirova (Tomsk Poly-

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06540

SOV/142-2-2-16/25

The Application of an Electrode Electric Field for Electron Acceleration in a Synchrotron

technic Institute imeni S.M. Kirov) the suggestion was made to use for electron acceleration the electric field created in a gap between conductive coatings inside the chamber, as shown by figure 1. With a sufficient thickness of the conductive layer, the configuration of the electric field will not be different from the shape of the field created in the accelerating gap of a coaxial resonator. In 1955, a 20 mev synchrotron was built at the Tomsk Polytechnic Institute with the application of the aforementioned electrodes. For feeding high frequency power to the accelerating gap two metal rings were used which were placed on the accelerating chamber, as shown by figure 2. The capacitance component of the input impedance of the device was compensated by a parallel-connected inductance, as shown by the equivalent circuit in figure 3. The aforementioned device occupies little space in the pole gap of the accelerating electromagnet and provides optimum operating conditions. The

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SOV/142-2-2-16/25

The Application of an Electrode Electric Field for Electron Acceleration in a Synchrotron

parallel resistance of the accelerating gap may be higher than with coaxial resonators. Frequency adjustments may be easily made. Special matching and balancing systems for the coupling with the HP generator are not required. The manufacture of such an accelerating device is considerably simpler than that of other accelerators. Figure 4 shows a general view of the accelerating device in the chamber. The electromagnet of the 15 mev betatron of the Tomsk Polytechnic Institute provided the magnetic field. The accelerating device was excited by a push-pull generator, composed of metal-ceramic tubes GI-12B, producing approximately 20 watts at a frequency of 350 mc. With such a power, 150 volts were obtained at the accelerating gap. The basic characteristics of the synchrotron with this accelerating device were the same as those obtained with a coaxial resonator. The gamma radiation had an intensity of 2 roentgen at 1 m

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SOV/142-2-2-16/25

The Application of an Electrode Electric Field for Electron Acceleration in a Synchrotron

distance from the target. There are 2 diagrams, 1 photograph, 1 circuit diagram and 3 references, 1 of which is Soviet and 2 English.

This article was recommended by the Nauchno-issledovatel'skiy institut yadernykh issledovaniy, elektroniki i avtomatiki pri Tomskom politekhnicheskoye imeni S.M. Kirova (Scientific Research Institute for Nuclear Research, Electronics and Automation at the Tomsk Polytechnic Institute imeni S.M. Kirov).

SUBMITTED: July 11, 1958

Card 4/4

1. 2. 3. 4. 5. 6.
ACC NR AP6013528

SOURCE CODE: UR/0120/66/000/002/0212/0214

AUTHOR: Butakov, L. D.; Solntsev, B. A.

ORG: Scientific Research Institute of Nuclear Physics, Electronics,
and Automation, TPI, Tomsk (Nauchno-issledovatel'skiy
institut yadernoy fiziki, elektroniki i avtomatiki pri TPI)

TITLE: Pulse generator of 100-kw and 40 μ sec

SOURCE: Priory i tekhnika eksperimenta, no. 2, 1966, 212-214

TOPIC TAGS: pulse generator, thyatron, PULSE SHAPER

ABSTRACT: A diagram is given in the original article of a square pulse generator of 100 kw and 40 μ sec. Pulses are shaped by the partial discharge of a capacitive accumulator through the thyatron. The front pulse and the clipped pulse are 0.3 and 3 μ sec, respectively. The layout provides for increased efficiency of the thyatron quenching circuit. Orig. art. has: 4 figures. [NT]

SUB CODE: 14/ SUBM DATE: 07Apr65/ ORIG REF: 002/ OTH REF: 001/

Card 1/1 ULR

UDC: 621.317.765.4

ACC NR. AT7003996

SOURCE CODE: UR/0000/66/000/000/0098/0104

AUTHOR: Butakov, L. D.; Lashuk, N. A.; Solntsev, B. A.; Tolmachev, V. I.

ORG: Scientific Research Institute of Nuclear Physics, Electronics, and Automation, Tomsk Polytechnic Institute (Nauchno-issledovatel'skiy institut yadernoy fiziki, elektroniki i avtomatiki pri TPI)

TITLE: High-frequency system for operating an electron synchrotron as a proton-synchrotron

SOURCE: Mezhevuzovskaya konferentsiya po elektronnyim uskoritelyam. 5th, Tomsk, 1964. Elektronnyye uskoriteli (Electron accelerators); trudy konferentsii. Moscow, Atomizdat, 1966, 98-104

TOPIC TAGS: synchrotron, proton, ~~synchrotron~~ *electron*

ABSTRACT: Wide passband and high voltages do not permit using conventional proton-synchrotron-tape aperiodic accelerating systems. Nor can drift tubes or accelerating transformers be used. Hence, two variants of a special accelerator are proposed:

(1) Two closely coupled and shunted toroidal resonators (see Fig. 1) and (2) A system of ring electrodes (see Fig. 2). The entire frequency deviation is 9 Mc, and the frequency by the end of the cycle is 36 Mc. The hf channel is divided into two subchannels: a 1.2-Mc one covering most of the cycle and a wide-band one covering the initial part of the cycle. In the ring-electrode design, all long lines are supplied

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ACC NR: AT7003996

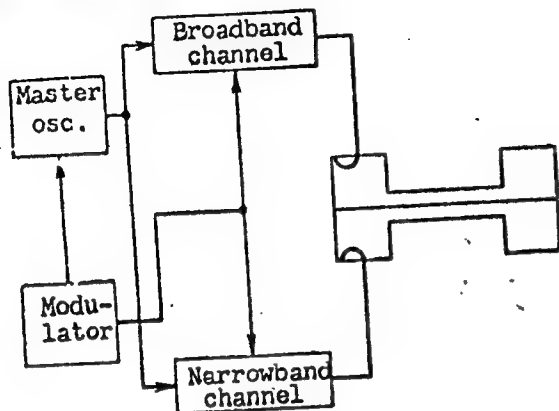


Fig. 1. Two-coupled resonator hf system

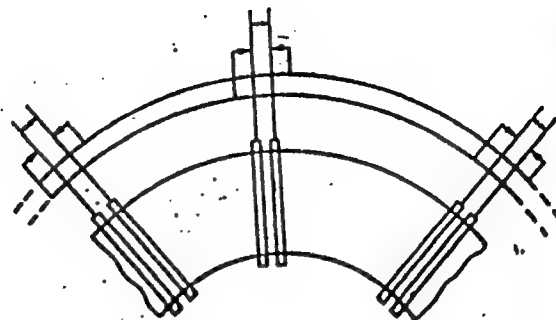


Fig. 2. Ring-electrode hf system

by a common feeder system. Some details of the electronic equipment are given.
Orig. art. has: 8 figures and 6 formulas.

SUB CODE: 09, 20 / SUBM DATE: 06Mar66

Card 2/2

ACC NR: AT7003997

SOURCE CODE: UR/0000/66/000/000/0105/0111

AUTHOR: Lashuk, N. A.; Solntsev, B. A.

ORG: none

TITLE: Transients in a pulsed hf system

SOURCE: Mezhvuzovskaya konferentsiya po elektronnym uskoritelyam. 5th, Tomsk, 1964. Elektronnyye uskoriteli (Electron accelerators); trudy konferentsii. Moscow, Atomizdat, 1966, 105-111

TOPIC TAGS: cyclic accelerator, transient phenomenon, *high frequency, resonator*

ABSTRACT: The transient time of an accelerating voltage largely depends on the parameters of the accelerator resonator because the latter's Q-factor is considerably higher than that of the oscillator circuits. Principal and equivalent circuits of excitation of the resonator conventionally used in the vhf band are

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ACC NR: AT7003997

shown. Solution of a differential equation that describes the equivalent circuit yields formulas for the output voltage transient (settling) time. The transients in amplifier stages can be reduced by pre-modulation in the output stage. Also, a formula describing the phase variation of oscillations under transient conditions is derived. The effect of other circuits on transients is allowed for by introducing an exponential exciting emf. Under resonance conditions, only amplitude transients occur in the oscillatory system; both frequency and phase of forced oscillations are established instantaneously. Orig. art. has: 5 figures and 20 formulas.

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SUB CODE: 09, 20 / SUBM DATE: 06Mar66

Card 2/2

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SOURCE CODE: UR/0000/66/000/000/0249/0253

AUTHOR: Butakov, L. D.; Lashuk, N. A.; Solntsev, B. A.

ORG: none

TITLE: Shaping the long steep-front pulses

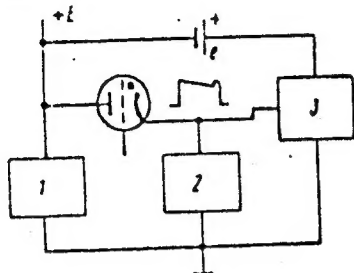
SOURCE: Mezhevuzovskaya konferentsiya po elektronnyim uskoritelyam. 5th, Tomsk, 1964. Elektronnyye uskoriteli (Electron accelerators); trudy konferentsii. Moscow, Atomizdat, 1966, 249-253

TOPIC TAGS: pulse shaper, pulse shape, particle acceleration

ABSTRACT: A method is described of shaping high-power steep-front long pulses intended for anode modulation of a hf oscillator (e.g., in a synchrotron accelerator). Millisecond pulses are shaped by discharging a storage into a load via a hydrogen thyatron (G. W. Wheeler, Rev. Sc. Instr., v. 32, no. 10, 1961). To ensure short time and high efficiency, it is suggested that storage 1 (see figure) be discharged via a thyatron directly into grounded load 2. In this case, the thyatron is to be quenched by a pulse supplied by auxiliary oscillator 3. The expected pulse-rise time

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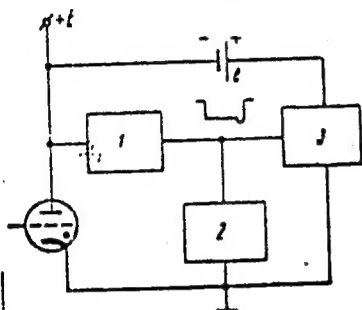
ACC NR: AT7004003



is 20—100 nsec; efficiency, near 100%. The quenching-pulse duration must be 50—500 μ sec. Principal connection diagrams of such (100-kw) pulse shapers are supplied, as are four oscillograms of the pulses. Orig. art. has: 7 figures and 1 table.

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ORIG REF: 001 / OTH REF: 001



Card 2/2

SOLNTOW, B.K.

Tretsiionnoe ustroistvo dlia kontroliia i izmereniia chastoty elektricheskikh kolebaniia / Precision apparatus for controlling and measuring the frequency of electric oscillations /. Sviaz'izdat, 1952. 20 p.

SC: Monthly List of Russian Accessions, Vol. 6, No. 2, May 1953

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Frequency calibrator. Vest.svyazi 14 no.1:12-14 Ja '54. (MLRA 7:5)

1. Nachal'nik laboratorii nauchno-issledovatel'skogo instituta Ministerstva svyazi. (Radio measurements)

SOLNTSEV, Boris Kuz'mich, inzh.; SHTEYNROK, G.Yu., inzh., vedushchiy red.;
KRYSIMOV, B.V., kand.tekhn.nauk, red.

[SCh-VII frequency standard] Standart chastoty SCh-VII. Moskva,
Filial Vses. in-ta nauchnoi i tekhn.inform., 1956. 19 p. (Pribory
i stendy. Tema 6, no.P-56-471) (MIRA 11:3)
(Frequency measurements)